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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,373	01/27/2000	Yuzo Horikoshi	991444	9795
38834	7590	02/27/2006	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/492,373

Applicant(s)

HORIKOSHI ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 06 February 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): see attachment.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1,4,6,7,9,10,14-17 and 20-25.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Callie E. Shosho  
Primary Examiner  
Art Unit: 1714

**Attachment to Advisory Action**

1. Applicants' amendment and arguments filed 2/6/06 overcome the 35 USC 112, 1<sup>st</sup> paragraph rejection of record set forth in paragraph 1(b) of the office action mailed 10/6/05 as well as the 35 USC 112, 2<sup>nd</sup> paragraph rejections of record. It is also noted that the 35 USC 103 rejection of record against present claims 21-25 are overcome in light of applicants' amendment to these claims given that there is no disclosure in the "closest" prior art Nguyen et al. (U.S. 6,248,805) that the copolymer is obtained from 2-hydroxypropyl-N,N,N-trimethylammonium chloride or N,N-diallylmethylammonium chloride as now required in present claims 21-25.

Applicants' amendment and arguments do not overcome the 35 USC 112, 1<sup>st</sup> paragraph rejection of record of claims 1, 4, 6-7, 9-10, 14-17, and 20-25 as set forth in paragraph 1(a) of the office action mailed 10/6/05 and do not overcome the 35 USC 103 rejection of record with respect to present claims 1, 4, 6-7, 9-10, 14-17, and 20 as set forth in paragraph 7 of the office action mailed 10/6/05.

Previously, the present claims were rejected under 35 USC 112, 1<sup>st</sup> paragraph given the examiner's position that there did not appear to be a written description requirement of the phrase "substituted or unsubstituted acrylate or substituted or unsubstituted alkyl methacrylate" in the specification as originally filed.

In response, in the amendment filed 2/6/06, applicants have amended claims 1, 14, 16, and 17 to each recite "alkyl" acrylate and argue that support for the phrase "substituted or unsubstituted alkyl acrylate or substituted or unsubstituted alkyl methacrylate" is found on page 11, lines 19-27 of the present specification.

However, while page 11, lines 19-27 of the present specification discloses that the polymeric monomer having a polar group is “alkyl acrylate, alkyl methacrylate, and derivatives thereof”, it is the examiner’s position that this does not provide support to recite “substituted” alkyl acrylate or “substituted” alkyl methacrylate. It is not clear what is meant by “derivatives thereof” or that the disclosure of “derivatives thereof” is equivalent to the recitation of “substituted” alkyl acrylate or “substituted” alkyl methacrylate as presently claimed. Further, while there is support to recite specific types of substituted alkyl acrylate on page 15 of the present specification, i.e. dimethylaminoethyl acrylate and 2-hydroxypropyl -N,N,N-trimethylammonium chloride acrylate, these specific examples do not provide support to broadly recite “substituted” alkyl acrylate or to recite “substituted” alkyl methacrylate as presently claimed.

Further, with respect to the 35 USC 103 rejection of record, applicants argue that Nguyen et al. (U.S. 6,248,805) is not a relevant reference against the present claims given that the ink of Nguyen et al. contains solvent that is a mixture of water and organic solvent and that such mixture would inherently dissolve any pigment or dye present in the ink which is in direct contrast to the present claims that require that the colorant is not dissolved in the solvent.

However, while applicants argue that the pigment and water-soluble or water-insoluble dye would dissolve in the water/solvent mixture of Nguyen et al., applicants have provided no evidence to support their position. For instance, there is no evidence that the pigment or water-insoluble dye would dissolve in the ink of Nguyen et al. wherein the amount of solvent is as little as 5%. This is especially significant in light of col.3, lines 66-67 and col.31, lines 45-48 of

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Nguyen et al. that disclose that the copolymer present in the ink serves to “disperse” the colorant. Additionally, col.5, lines 19-20, col.3, line 67-col.4, line 1, and col.26, line 65-col.27, line 8 of Nguyen et al. discloses that the colorant is dispersed in the copolymer. Thus, it is the examiner’s position that the colorant of Nguyen et al. is not dissolved in the solvent, i.e. water/solvent mixture, and is dispersed in the copolymer as required in the present claims.

Applicants also argue that even if the particles produced in Nguyen et al. are within the presently claimed range of volume average particle diameters, particles under 0.05  $\mu\text{m}$  or over 1  $\mu\text{m}$  can also be produced.

However, given that Nguyen et al. produces polymer by emulsion polymerization as presently claimed, it would have been natural for one of ordinary skill in the art to infer, absent evidence to the contrary, that the polymer does intrinsically possess volume average particle diameter as presently claimed. While applicants argue that particles under 0.05  $\mu\text{m}$  or over 1  $\mu\text{m}$  can be produced, they have offered no evidence to support this position. Further, there is nothing in the scope of the present claims that excludes the polymer from having some particles under 0.05  $\mu\text{m}$  or over 1  $\mu\text{m}$  as long as the volume average diameter falls within the presently claimed range. Additionally, it is noted that, alternatively, Nguyen et al. is used in combination with Patel et al. which explicitly discloses the use of polymer having volume average particle size of 0.1-1  $\mu\text{m}$  as presently claimed.



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